Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original): A position information transmission method for transmitting and receiving road shape information and event information, the method comprising the steps of:

intermittently selecting nodes in a target road section on a digital map;

transmitting road shape information, wherein the road shape information includes coordinate data of a selected nodes and designates a target road section;

executing a map matching based on the road shape information including coordinate information of the selected nodes;

obtaining a road between the selected nodes by using a route search; and

identifying the target road section on the digital map;

wherein said steps of selecting nodes and transmitting road shape information are executed at a transmitting side, and

wherein said steps of executing a map matching, obtaining a road, and identifying the target road section

are executed at a receiving side.

Claim 2 (original): The method according to claim 1, wherein the road shape information transmitted from the transmitting side includes supplementary information indicating attributes of the selected nodes, and

wherein the receiving side references the supplementary information in the step of executing a map matching in order to determine the positions of the nodes.

Claim 3 (original): The method according to claim 2, wherein the supplementary information indicating the attributes of the nodes includes at least one of a node type, a node name, a number of connecting links, angles between connecting links, and an intercept azimuth at the selected node.

Claim 4 (original): The method according to claim 2, wherein the supplementary information indicating the attributes of the nodes includes an intercept azimuth at the selected node and at least one of a node type, a node name, a number of connecting links, and angles between connecting links.

Claim 5 (original): The method according to claim 1, wherein the road shape information transmitted from

the transmitting side includes supplementary information indicating attributes of links included between the selected nodes, and

wherein the receiving device references the supplementary information during using the route search in the step of obtaining the road between the nodes.

Claim 6 (original): The method according to claim 5, wherein the supplementary information indicating the attributes of the links includes at least one of a road type, a road number, and a link type.

Claim 7 (original): The method according to claim 1, wherein the transmitting side selects a plurality of nodes arranged around the selected node in the step of intermittently selecting nodes in the target road section and transmits the road shape information including the coordinate data of each selected node.

Claim 8 (original): The method according to claim 1, further comprising the steps of:

evaluating an accuracy of the matching at the receiving side based on a distance from the node to a closest point on an adjacent road and a difference between the intercept azimuths at the node and at the closest point on the adjacent road;

selecting a plurality of nodes arranged around the selected node in the step of the intermittently selecting nodes in the target road section; and

transmitting the road shape information including the coordinate data of each selected node,

wherein the steps of evaluating an accuracy of the matching, selecting a plurality of nodes, and transmitting the road shape information are executed at the transmitting side.

Claim 9 (original): The method according to claim 1, further comprising the steps of:

comparing a setting date of the digital map data of the road in the target road section with a regulated date; and

transmitting the road shape information including data representing the road shape in the target road section, in case of that the setting date is later than the regulated date;

wherein the steps of the comparing a setting date with a regulated date and transmitting the road shape information are executed at the transmitting side.

Claim 10 (original): The method according to claim 1,

wherein the road shape information transmitted from the transmitting side includes a setting date that the

digital map data of the road in the target road section was set, and

wherein the step of identifying the target road section is skipped in case of that the setting date is latter than a creation date of a digital map data which the receiving side owns.

Claim 11 (original): The method according to claim 1,

wherein the road shape information transmitted from the transmitting side includes distance data between the intermittently selected nodes, and

the method further comprising the step of:

comparing the distance of the road connecting the nodes obtained by way of the route search and the distance between the nodes in the road shape information; and

discriminating propriety of the route search;

wherein the steps of the comparing the distances and discriminating the propriety are executed at the receiving side.

Claim 12 (original): The method according to claim 1, further comprising the steps of:

evaluating an accuracy of the matching of nodes in the target road section; and

determining a length of the target road section or number of the nodes in the road shape information based on

the result of the step of evaluating;

wherein the steps of the evaluating the accuracy and determining the length are executed at the transmitting side.

Claim 13 (original): The method according to claim 12,

wherein, in the step of evaluating the accuracy, the accuracy of the matching is evaluated based on a distance from a node to a closest point on an adjacent road and the difference between the intercept azimuths at the node and at the closest point.

Claim 14 (original): A position information transmission apparatus for transmitting road shape information to specify the target road section on a digital map, the apparatus comprising:

position information converting means for selecting the target road section;

transmit node extracting means for intermittently selecting nodes in the road shape information out of the nodes arranged on the target road section; and

transmitting means for transmitting the selected nodes of the target road section.

Claim 15 (original): A position information receiving

apparatus for receiving road shape information designating a target road section on a digital map and for specifying the target road section based on the road shape information, the apparatus comprising:

map matching means for performing map matching to determine positions of selected nodes included in the road shape information; and

route search means for obtaining the road connecting the nodes determined to reproduce the target road section.

Claim 16 (original): The position information receiving apparatus according to claim 15,

wherein the map matching means executes a map matching based on node information of some of the nodes included in the road shape information to determine the positions of the nodes on a digital map.

Claim 17 (original): The position information receiving apparatus according to claim 15,

wherein the map matching means executes a map matching based on node information at least two nodes in the road shape information to determine the positions of the nodes on a digital map.

Claim 18 (new): A method for identifying position of a target road section on a digital map, said method

comprising the steps of:

at a transmitting side having a first digital map,

creating position information of the target road section on a first digital map, wherein said position information includes coordinate information of nodes selected from the target road section;

sending said position information of the target road section;

at a receiving side having a second digital map,

receiving said position information of the target road section;

calculating a path connecting said selected nodes on the second digital map based on said coordinate information; and

identifying position of said target road section on the second digital map based on the calculated path.

Claim 19 (new): The method according to Claim 18, wherein, in the step of calculating the path between the selected nodes, said receiving side calculates the shortest path between said selected nodes.

Claim 20 (new): The method according to Claim 18, wherein said nodes are intermittently selected from the target road.

Claim 21 (new): A method for identifying position of a target road section on a digital map, said method comprising the steps of:

at a transmitting side having a first digital map,

creating position information of the target road section on the first digital map, wherein said position information includes nodes intermittently selected form said target road section and representing said target road section, coordinate information of the selected nodes, and supplementary information;

sending said position information of said target road section;

at a receiving side having a second digital map,

receiving said position information of said target road section;

calculating a path connecting the selected nodes on a second digital map with referring to at least the supplementary information; and

identifying position of said target road section on the second digital map based on said calculated path.

Claim 22 (new): The method according to any one of claims 18 to 21,

wherein said position information includes a node on a intersection.

Claim 23 (new): The method according to any one of the claims 18 to 21,

wherein said position information includes a node on any points between intersections.

Claim 24 (new): The method according to any one of claims 18 to 20,

wherein said position information includes a node in the middle of distance between intersections or in the vicinity of the middle of distance between intersections.

Claim 25 (new): The method according to Claim 21,

wherein said supplementary information indicates attribute of the selected nodes.

Claim 26 (new): The method according to Claim 21,

wherein said supplementary information indicates attribute of a path between said selected nodes.

Claim 27 (new): The method according to Claim 25,

wherein said attribute of nodes indicates any one of a road type, an intercept azimuth, a crossing link angle, and a road name, at each nodes.

Claim 28 (new): The method according to Claim 26,

wherein said attribute of path indicates any one of a

length and a road type, of the path.

Claim 29 (new): A method for identifying position of a target road section on a digital map, said method comprising the steps of:

at a transmitting side having a first digital map,

creating position information of the target road section, wherein said position information includes coordinate information of nodes selected form the target road section and at least a part of said nodes represent a shape of a predetermined section of the target road section;

sending said position information of the target road section;

at a receiving side having a second digital map,

identifying position of said predetermined section on the second digital map by using said shape;

calculating a path of the other section on the second digital map; and

identifying position of the target road section on the second digital map based on the identified position of said predetermined section and the calculated path.

Claim 30 (new): The method according to claim 29,

wherein said nodes representing said predetermined section are selected more thickly than the other section.

Claim 31 (new): The method according to claim 29, wherein said predetermined section is a section which is estimated to cause an error matching at the sending side, or a section which is estimated to cause a miscalculation of a path thereof at the sending side.

Claim 32 (new): The method according to claim 29, wherein said predetermined section fails into one of a section to which plural roads run parallel and a section having a possibility that plural paths are calculated.

Claim 33 (new): An apparatus for providing position information indicating a target road section on a digital map, said apparatus comprising:

means for identifying a target road section on a digital map;

means for intermittently selecting nodes from points arranged on the target road section;

means for obtaining coordinate information of the selected nodes;

means for creating position information from the obtained coordinate information; and

means for transmitting the position information.

Claim 34 (new): An apparatus for providing position

information indicating a target road section on a digital map, said apparatus comprising:

means for identifying a target road section on a digital map;

means for selecting a predetermined section from the target road section;

means for intermittently selecting nodes from points arranged on the target road section in such manner that nodes are selected more thickly in the predetermined section than the other section of the target road section;

means for obtaining coordinate information of the selected nodes;

means for creating position information from the obtained coordinate information; and

means for transmitting the position information.

Claim 35 (new): An apparatus for identifying position of a road section represented by position information, said apparatus comprising:

means for determining position of nodes representing the target road section based on the position information;

means for calculating a path connecting the nodes;

means for identifying position of the road section; and

means for reproducing the road section.

Claim 36 (new): The apparatus according to claim 35, wherein said position identification means identifies the position of the target road section based on the coordinate information of at least one of the nodes included in the position information.

Claim 37 (new): The apparatus according to claim 35, wherein said position identification means identifies the position of the target road section based on the coordinate information of at least two of the nodes included in the position information.

Claim 38 (new): A program product for creating and transmitting position information, said program product comprising a computer usable medium including therein a computer readable program code, said computer readable program code comprising:

program code means for creating position information of a target road section on a first digital map, wherein said position information includes nodes intermittently selected form points of the target road section and representing the target road section; and

program code means for transmitting said position information to a receiving side having a second digital map.

Claim 39 (new): A program product for receiving position information and identifying a position of a target road section represented by the position information, said program product comprising a computer usable medium including therein a computer readable program code, said computer readable program code comprising:

program code means for receiving the position information including coordinate information of nodes selected form points arranged on the object on a first digital map;

program code means for calculating a path connecting the nodes;

program code means for identifying position of the object on a second digital map based on the coordinate information and the calculated path.

Claim 40 (new): A method for identifying a first road section on a first digital map, and identifying a second road section, corresponding to the first road section, on a second digital map, the method comprising the steps of:

selecting the first road section on the first digital map;

selecting first plural points located on the first road section, on the first digital map;

creating location information indicative of coordinates of the first plural points on the first digital

map;

identifying plural second points, corresponding to the first plural points, on the second map with reference to the location information;

calculating a path connecting the second plural points on the second map; and

identifying the second road section on the second map based on the path.

Claim 41 (new): A method for identifying a first road section on a first digital map, and identifying a second road section, corresponding to the first road section, on a second map, the method comprising the steps of:

selecting the first road section on the first digital map;

extracting a part of the first road section as a predetermined section on the first digital map;

selecting first plural points located on the first predetermined section on the first digital map;

creating location information indicative of coordinates of the first plural points on the first digital map;

creating positional information indicative of a relative positional relationship between the first road section and the first predetermined section on the first digital map;

identifying plural second points, corresponding to the first plural points, on the second map with reference to the location information;

identifying a second predetermined section, corresponding to the first predetermined section, on the second digital map based on the plural second points; and

identifying the second road section on the second map based on the second predetermined section and the positional information.

Claim 42 (new): The method according to claim 40 or 41,

wherein the coordinate information indicates an absolute coordinate of one of the first plural points as the coordinate of the one of the first plural points, and a relative positional relationship between the one of the first plural points and another one of the first plural points as the coordinate of the other one of the first plural points.

Claim 43 (new): The method according to claim 40 or 42,

wherein the first plural points include a start node and an end node of the first road section on the first digital map.

Claim 44 (new): A method for identifying a road section on a digital map with reference to location information, the method comprising the steps of:

identifying plural points on the digital map with reference to the location information;

calculating a path connecting the plural points on the digital map; and

identifying the road section on the digital map based on the path.